LAUREL QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 LOS GATOS 15' QUADRANGLE

1658 III NE (SANTA TERESA HILLS)

AN JOSE 19 MI.
OS GATOS 8.2 MI.

1658 III NW (LOS GATOS)

LOS GATOS 9.5 MI.
3 MI. TO CALIF. 17

R. 1 W. | R. 1 E.

1 590 000 FEET

121°52'30"

37°07'30"

230 000 FEET

T. 9 S.

MAP EXPLANATION

Faults mapped by Sarna-Wojcicki and others (1975), dashed where less obvious, dotted where inferred or projected under water. Selected annotations indicated by box.

Surface fractures produced during 17OCT89 Loma Prieta earthquake mapped by Wells and others (1989), dashed where discontinuous, dotted where obscured by vegetation or located in inaccessible areas. Numbers refer to horizontal displacement in centimeters.

Selected fissures produced during 17OCT89 Loma prieta earthquake mapped by Spittler and others (1990). Numbers refer to horizontal displacement in centimeters.

Ridgetop-spreading features mapped by Bryant (this report), based on air photo interpretation and limited field mapping (indicated by f/c and date). Solid line indicates well-defined feature, dashed where approximately located, short dash where inferred, dotted where concealed; queries indicate additional uncertainty; hachures indicate extent and direction scarp faces.

Landslide head scarp, based on air photo interpretation by Bryant (this report); incompletely mapped.

Observation described in Table 1.

Locality referred to in text.

Location and orientation of trench excavation. Evidence of possible Holocene activity exposed in trench indicated in red. Location of trench less than 100 feet indicated by X.

GEOMORPHIC FEATURES INDICATIVE OF FAULT RECENCY AND/OR LOCATION, BASED ON AIR PHOTO INTERPRETATION AND FIELD MAPPING BY BRYANT (THIS REPORT)

b - bench	ld - linear drainage
bd - beheaded drainage	lr - linear ridge
bis - break in slope	n - notch
cd - closed depression	pa - ponded alluvium
dd - deflected drainage	s - saddle
rl - right lateral	sw - swale
ll - left lateral	t - tonal lineament
dno - drainage not offset	tr - trough

Figure 3b (to FER-225). Ridgetop-spreading fissures produced during the 1989 Loma Prieta earthquake, and related geomorphic features associated with ridgetop spreading.

TABLE OF OBSERVATIONS - Figure 3b
(modified from Hart and others, 1990)

Locality	Description
13	Large extensional fissures with northeast-facing scarps developed on hillslope; fissures turn downslope to the west in benched topography; to east fissures connect landslide fissures and related features upslope. Fissures are gradational with those at C.T. English School farther upslope (Figure 2a), all of which suggest toppling associated with landsliding. In landslide deposits in San Lorenzo Formation (Clark and others, 1989). f/c 1-90.
14	Slump scarps. f/c 1-90.
15	Extensional cracks in sandstone outcrop in Laurel Creek suggest expansion (bulging) of slopes outward; bedrock is pervasively sheared and bedding attitudes erratic, suggesting landslide deformation. San Lorenzo Formation of Clark and others,(1989). f/c 1-90.
16	Minor fissures. f/c 1-90.
17	N55°W-trending cracks fissures damaged church. Extensional opening 8 to 20 cm. f/c 1-90.
18	Swaley ridge. f/c 1-90.
19	Northwest-trending zone of compressional cracks with southwest pavement thrust over northeast side. AC curbs are overturned. Cracks occur in fill. f/c 10-89.
20	Minor cracks, no pre-existing geomorphic expression. f/c 1-90.
21	Large extension cracks (to 46 cm) at head of landslide scarp. Vertical displacement to 10 cm (down-to-the-northeast). f/c 11-89.
22	23 cm-high scarp across AC-paved road extends northwest along base of steep scarp. f/c 11-89.
23	Large fissure zone extends diagonally uphill; 33 cm extension at road; crudely follows weak swale, bench, and scarps; left-lateral slip in eastern segment (Wells and others, 1989) appears to represent the left flank of a large landslide as do other crack zones to the northwest and southeast. Hillslope is benched and hummocky. Butano shale and sandstone of Clark and others (1989). f/c 1-90.
24	No geomorphic expression except broad ridgeline. f/c 1-90.
25	Fissures with 21 cm of extension at road coincide with a broad trough and closed depression to the west which, along with arcuate pattern of fissure zone, indicate a landslide feature; slope to the northwest is benched and hummocky. San Lorenzo Formation of Clark and others (1989). f/c 1-90.
26	Fractures with extensional openings to 15 cm and scarp up to 15 cm high (up on north) - possible landslide **headscarp. No geomorphic evidence associated** with fractures. f/c 1-90.
27	**Arcuate fissures on benched slopes indicate landslides.** f/c 1-90.

4108 4107 4106 4105 4104 5'

225-5